

REMARKS

Request for One Month Extension of Time under 37 C.F.R. 1.136(a)

Applicants hereby request an one-month extension of time under 37 C.F.R. 1.136(a), thus extending the time for responding to the July 30, 2003 Final Office Action to November 30, 2003.

Amendments of Claims 4-6, 35, and 40-41 and Cancellation of Claims 1-3, 7-9, 36-39, and 42

Consistent with the November 12, 2003 telephonic interview between Ms. Yongzhi Yang of Intellectual Property/Technology Law, Examiner Wai-Sing Louie, and Primary Examiner Long Pham, Applicants have hereby cancelled the rejected claims 1-3, 7-9, 36-39, and 42, and rewritten the allowable claims 4-6, 35, and 40-41 into independent form, as suggested by the Examiners. A clean copy of the pending claims 4-6, 35, and 40-41 is enclosed herewith in Appendix A.

Amended claims 4-6, 35, and 40-41 as now pending are in form and condition for allowance. Issuance of a Notice of Allowance is therefore requested.

Payment of Fees

The fee payable for the rewriting of claims 4-6, 35, and 40-41 in independent form, in light of the previous and current cancellation of claims, is calculated below.

<u>Type of Claims</u>	<u>Number of Original Claims</u>	<u>Number After Amendment</u>	<u>Amount Payable</u>
Independent	2	6	\$258
<u>Total</u>	<u>10</u>	<u>6</u>	<u>\$0</u>
Amount Payable			\$258

The Office is hereby authorized to charge the official fees in the total amount of **\$368.00**, which include \$110.00 for the request for one-month extension of time and \$258.00 for entry of the claim amendments, to Deposit Account No. 08-3284 of Intellectual Property/Technology Law.

The Office is also authorized to charge any additional fees that are necessary for entry of this Amendment, and to credit any overpayment, to Deposit Account No. 08-3284.

Respectfully submitted,



Steven J. Hultquist
Reg. No. 28,021
Attorney for Applicants

INTELLECTUAL PROPERTY/
TECHNOLOGY LAW
P.O. Box 14329
Research Triangle Park, NC 27709
Phone: (919) 419-9350
Fax: (919) 419-9354
Attorney File No.: 2771-410 RCE

APPENDIX A

Clean Copy of All Pending Claims 4-6, 35, and 40-41

4. A gallium nitride-based HEMT device, comprising a channel layer comprising an InGaN alloy and at least one additional layer over said channel layer, wherein said at least one additional layer comprises material selected from the group consisting of GaN and InGaN, and wherein said device does not comprise an aluminum-containing layer.
5. A gallium nitride-based HEMT device, comprising a channel layer comprising an InGaN alloy and at least one additional layer directly over said channel layer, wherein said at least one additional layer comprises GaN material, forming a GaN/InGaN HEMT with the channel layer.
6. A gallium nitride-based HEMT device, comprising a channel layer comprising an InGaN alloy and at least one additional layer directly over said channel layer, wherein said at least one additional layer comprises InGaN material, forming an InGaN/InGaN HEMT with the channel layer.
35. A gallium nitride-based HEMT device, comprising a channel layer comprising an InGaN alloy and at least one additional layer over said channel layer, wherein said at least one additional layer comprises $\text{Al}_x\text{Ga}_{1-x}\text{N}$ material, and wherein x is about 0.1.
40. A gallium nitride-based HEMT device, comprising:
 - a substrate;
 - a GaN buffer layer on said substrate;
 - a channel layer on said GaN buffer layer, said channel layer comprising an InGaN alloy;

at least one additional layer on said channel layer, said at least one additional layer comprising undoped GaN material and forming a GaN spacer layer; and
a doped GaN donor layer on said GaN spacer layer.

41. A gallium nitride-based HEMT device, comprising:
a substrate;
a GaN buffer layer on said substrate;
a channel layer on said GaN buffer layer, said channel layer comprising an InGaN alloy;
at least one additional layer on said channel layer, said at least one additional layer comprising undoped InGaN material and forming an InGaN spacer layer; and
a doped InGaN donor layer on said InGaN spacer layer,
wherein said InGaN spacer layer has a lower InN concentration than said channel layer.